

PHENOLOGY AND STATUS OF THE SHOREBIRDS IN NORTHERN UTAH

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Although the marshes associated with Bear Lake, the Bear River and the Great Salt Lake are noted for providing habitat for large concentrations of waterbirds, the status of the shorebirds (Charadrii) has not been well-documented in northern Utah. Because of their location in the arid Great Basin, these extensive marshes may be a critical staging area for many migratory shorebirds; in addition, they support substantial breeding populations of several species. As human demand for the limited water resource increases, information about the seasonal use of the wetlands by shorebirds becomes more urgent for consideration in water management decisions. This paper presents new information on the phenology of migration and nesting, and on the numerical status, of shorebirds in northern Utah.

In connection with their work on the birds of Utah, Behle and Perry (1975) summarized the status of shorebirds based on published and unpublished records from 1852 to 1 October 1974, and Hayward et al. (1976) similarly provided another review. I began making observations on shorebirds in northern Utah (in Cache Valley and at the Bear River Migratory Bird Refuge) in the fall of 1973. From that time through spring 1980, while conducting behavioral research on Willets, American Avocets and Black-necked Stilts, I kept notes on the species and numbers of shorebirds present during my field work. I have records for 375 days, the majority of which are from 1975, 1977 and 1978. A few of these records have been reported as sightings in *American Birds*.

Unless otherwise indicated, all records reported here are from the Barrens, near Amalga, Cache County, Utah. The Barrens consists of shallow ponds and channels with extensive salt flats and mud flats. Its vegetation is mostly desert saltgrass (*Distichlis stricta*) and samphire (*Salicornia spp.*). The Barrens is approximately 205 ha in size. Thus the numerical data given convey a rough idea of shorebird densities; however, the breeding densities of Willets and Long-billed Curlews cannot be gauged in this way because they nested in surrounding agricultural fields. All records presented in this paper are based on direct personal observations, unless otherwise noted. Thus in some cases the span of dates given for copulations, nests with eggs, hatching, or flightless young could be extended further by calculations employing literature values for incubation period or fledging age.

I recorded 32 shorebird species at the Barrens. Of these, 8 nest there: American Avocet, Black-necked Stilt, Killdeer, Snowy Plover, Common Snipe, Long-billed Curlew, Willet and Wilson's Phalarope. A ninth species, the Spotted Sandpiper, may occasionally breed at the Barrens. Behle and Perry (1975) listed 37 shorebird species for the state. Of those, I did not observe 6 species: Black Oystercatcher (*Haematopus bachmani*), Mountain Plover (*Charadrius montanus*), Bar-tailed Godwit (*Limosa lapponica*),

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Upland Sandpiper (*Bartramia longicauda*), Wandering Tattler (*Heteroscelus incanus*) and Red Phalarope (*Phalaropus fulicarius*). I recorded one species (Curlew Sandpiper) that is not on their list (but see species account below).

The records presented here extend the dates of occurrence listed by Behle and Perry (1975) for 14 species; these species are indicated by an asterisk (*). Some of these may winter in small numbers in the southern part of the state (Behle and Perry 1975, Hayward et al. 1976). Although I did not examine the relationship critically, it appeared that more migrants were present and more sightings of uncommon species were made under certain meteorological conditions — especially low, heavy cloud cover associated with precipitation (see also Beason 1978). I have attempted to follow the conventions used by Behle and Perry (1975:4-5) for seasonal status and relative abundance. Five species are given status or abundance designations that differ from those of Behle and Perry (1975); these species are indicated by a double asterisk (**).

RECURVIROSTRIDAE

AMERICAN AVOCET, *Recurvirostra americana*. Common summer resident. Present 24 March-27 October, with a maximum of 361 recorded during spring migration, and an estimated breeding population of 85 pairs.

Copulations observed 24 March-23 June. Nests with eggs 14 April-18 July. Hatching 17 May-18 July. Latest clutch initiation 22 June. Flightless young until 15 August. By 13 June many birds start to molt into gray head of basic plumage, beginning around the eyes and on the forehead; replacement of remiges also begins by mid-June for many individuals.

BLACK-NECKED STILT, *Himantopus mexicanus*. Common summer resident. Present 27 March-6 October, with a maximum of 85 recorded during spring migration, and an estimated breeding population of 25 pairs.

Copulations observed 11 April-6 June. Nests with eggs 23 April-10 July. Hatching 20 May-6 July. Latest clutch initiation 9 June. Flightless young until 5 August. Molting of remiges begins in mid-June for many individuals.

CHARADRIIDAE

*SEMIPALMATED PLOVER, *Charadrius semipalmatus*. Uncommon transient. Spring occurrence 21 April-31 May; maximum number recorded, 30. Autumn occurrence 16 July-4 September; maximum number recorded, 6.

KILLDEER, *Charadrius vociferus*. Common summer resident: a few can be seen in parts of Cache County throughout the winter (J.T. Mundahl pers. comm.) and may be permanent residents, but none are present at the Barrens in winter. Present at the Barrens 19 March-13 October. Maximum of 150 recorded in late March. Estimated breeding population of 20 pairs.

Combining my observations at the Barrens with those of J.T. Mundahl (pers. comm.) elsewhere in Cache County provides the following information on breeding phenology. Migrants arrive about the first week of March. Copulations observed 6 March-2 July. Nests with eggs 29 March-15 July. Flightless young 4 May-3 August. Some flocking apparent in late June.

*SNOWY PLOVER, *Charadrius alexandrinus*. Uncommon summer resident. Present 27 March-3 September. Maximum of 20 recorded in mid-April. Estimated breeding population of 5-8 pairs.

Nests with eggs 23 May-1 June. Flightless young 28 June-6 August.

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American Avocet on nest, May 1979, Utah.

Photo by Tom Bledsoe

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*LESSER GOLDEN PLOVER, *Pluvialis dominica*. Uncommon transient. Three spring sightings — one bird in basic plumage on 7 April 1979, one bird in alternate plumage on 20 May 1978, and one bird in basic plumage (but with a few black breast feathers) on 20 June 1977. Three fall sightings of 3 birds in basic plumage, 23 September-6 October 1978; probably the same individuals each day.

**BLACK-BELLIED PLOVER, *Pluvialis squatarola*. Uncommon transient. Approximately as common as Semipalmated Plover, but more common than Lesser Golden Plover. Spring occurrence 23 April-25 May, with a maximum of 8 recorded; 10:1 ratio of alternate:basic plumage. Fall occurrence 7 August-28 September, with a maximum of 11 recorded; 10:1 ratio of basic:alternate plumage.

SCOLOPACIDAE

Calidridinae

RED KNOT, *Calidris canutus*. Rare transient. Two spring records — one bird in alternate plumage on 5 May 1975, and a flock of 4 birds in alternate plumage on 6 and 7 May 1978. One fall record — a bird in basic plumage (but with some rusty color on the breast) on 14 July 1975. Behle and Perry (1975) cited 2 specimens for the state, taken at the Bear River Migratory Bird Refuge in July 1948 and at St. George on 12 September 1965; they also listed sight records in northern Utah on 8 May 1954, 11 May 1968 and 10 May 1973. Hayward et al. (1976) noted one additional specimen, collected in Box Elder County in May 1933.

*SANDERLING, *Calidris alba*. Uncommon transient. Spring occurrence 27 April-25 May; maximum number recorded, 12. One early fall record, of several birds on 25 July 1975. Most spring birds were in pre-alternate molt, with two-thirds of them being in predominantly basic plumage.

SEMIPALMATED SANDPIPER, *Calidris pusilla*. Probably rare transient. Status is uncertain because of the difficulty of distinguishing *C. pusilla* from the more common *C. mauri* in the field (Phillips 1975, Prater et al. 1977), especially in the fall (Ouellet et al. 1973). On three occasions I saw one or more birds at extremely close range that I identified as *C. pusilla* — 28 April 1975, 4 May 1977 and 8 May 1979. Behle and Perry (1975) cited two spring sight records from Utah, on 6 May 1945 and 7 May 1967. Hayward et al. (1976) reported a total of 4 Utah specimens, taken in September 1872, 13 June 1936 and 7 September 1965.

*WESTERN SANDPIPER, *Calidris mauri*. Common transient. Spring occurrence 3 April-17 May, but sightings of *Calidris* sp. on 29 March and 8 June 1978 were probably of this species; maximum number recorded, 30. Autumn occurrence 25 June-20 September; maximum number recorded, 287.

*LEAST SANDPIPER, *Calidris minutilla*. Common transient. Spring occurrence 7 April-22 May; maximum number recorded, 100. Autumn occurrence 3 July-6 October; maximum number recorded, 22.

*BAIRD'S SANDPIPER, *Calidris bairdii*. Uncommon transient. Spring occurrence 5 April-18 April, but probable sighting on 27 March 1978; maximum number recorded, 2. Autumn occurrence 3 July-6 October; maximum number recorded, 20. More common in fall. I did not attempt to age fall birds (see Jehl 1979).

PECTORAL SANDPIPER, *Calidris melanotos*. Uncommon transient. Spring occurrence 3 April-4 May, based on three records; maximum number recorded, 2. Autumn occurrence 3 September-6 October; maximum number recorded, 67.

**CURLIEW SANDPIPER, *Calidris ferruginea*. Hypothetical. One sight record of a bird in basic plumage on 6 and 7 August 1978 (Sordahl 1978) has been disputed (Am. Birds 33:220-221, 1979).

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*DUNLIN, *Calidris alpina*. Uncommon transient. Spring occurrence 22 April-2 June; maximum number recorded, 7. All birds seen were in alternate plumage. No fall records.

**STILT SANDPIPER, *Micropalama himantopus*. Rare transient. Spring occurrence 3 May-4 June, based on eight records of at least 6 individuals. One seen 3 May 1976; 2 in alternate plumage seen 25 May 1977; 1 seen 29 May 1977; 1 seen 4 June 1977; 1 in alternate plumage seen 14 May 1978; 2 in alternate plumage seen 29 May 1978; 1 in alternate plumage seen 19 May 1979; 1 seen 21 May 1979. Behle and Perry (1975) reported one spring sight record from southern Utah on 15 May 1965, and Hayward et al. (1976) reported a Utah specimen in pre-alternate molt taken in April 1893.

One autumn record, of a bird in pre-basic molt on 16 August 1978. Behle and Perry (1975) reported two fall sight records for northern Utah, on 26 July 1932 and 5 September 1968.

Gallinaginae

COMMON SNIPE, *Capella gallinago*. Common summer resident; winters in some parts of Cache County, at least during some years, but not at the Barrens. Occurrence at the Barrens 25 March-14 September. Flocks of ca. 20 birds seen nearby in late February. Winnowing at the Barrens 29 March-19 April. Estimated breeding population of 5 pairs.

Winegardner (1976) reported the following on breeding schedule in Cache County: winnowing 16 March-20 July; pair formation begins ca. 1 April; establishment of territories 1-15 April; territories, usually ca. 9 ha, occupied continually until about 15 June.

SHORT-BILLED DOWITCHER, *Limnodromus griseus*. Uncommon transient. Because of time constraints and the difficulty of distinguishing the two species of *Limnodromus*, I usually recorded the number of birds under the inclusive heading "dowitchers." See *L. scolopaceus*.

*LONG-BILLED DOWITCHER, *Limnodromus scolopaceus*. Common transient. Spring occurrence 26 March-8 June; maximum number recorded, 250. Autumn occurrence 8 July-6 October; maximum number recorded, 308.

Tringinae

**HUDSONIAN GODWIT, *Limosa haemastica*. Occasional. Two birds in alternate plumage 5 June 1976. Behle and Perry (1975) cited one sight record of 6 birds at Cedar City, Iron County, on 28 April 1968.

Because mine is only the second state record for this species, and the first for northern Utah, it is appropriate to provide details of the sighting. Using 7 x 35 binoculars I observed the 2 birds from 1600-1800 at distances of 40 to 100 m. It was sunny and clear, and the sun was behind me. The birds stood quietly, preened, and once flew in a wide semi-circle before landing nearby. Their long bills were light-colored at the base and slightly upturned, but the birds were distinctly smaller and much more reddish on the underparts than Marbled Godwits, which I never recorded at the Barrens later than 14 May; the latest spring date given by Behle and Perry (1975) for Marbled Godwits in Utah is 26 May. The reddish color of the underparts extended to the belly and undertail coverts, and was marked by dark bars. Both while preening and in flight the birds exhibited a dorsal white wing stripe and a black tail with white at its base. The black on the tail formed a terminal band which was sharply delineated from the white at the base of the tail. Identification of this species in alternate plumage is not difficult; the field marks noted above distinguish the Hudsonian Godwit from all species with which

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it might conceivably be confused, including the Long-billed Dowitcher, Marbled and Bar-tailed godwits, Willet, and even the Palearctic Black-tailed Godwit (*Limosa limosa*).

*MARBLED GODWIT, *Limosa fedoa*. Common transient. Spring occurrence 22 April-14 May; maximum number recorded, 50. D.M. Forsythe (pers. comm.) recorded spring arrival in Cache County on 20 April 1967. Autumn occurrence 23 June-3 September; maximum number recorded, 68.

WHIMBREL, *Numenius phaeopus*. Rare transient. Three spring records — 3 birds on 18 April 1977, 1 on 15 May 1977, and 1 on 11 May 1978. D.M. Forsythe saw 1 in Cache County on 7 May 1965 (Hayward et al. 1976). Several previous records for Utah span the dates 22 March-14 June, and include one fall record for 27 August (Behle and Perry 1975).

**LONG-BILLED CURLEW, *Numenius americanus*. Common summer resident. Present 29 March-15 August, with a maximum of 70 recorded during fall migration, and an estimated breeding population of 5-10 pairs in fields surrounding the Barrens. Nests with eggs 4-25 May. Flightless young 2-20 June. Last birds seen in fall are young-of-the-year.

D.M. Forsythe (pers. comm.) recorded spring arrival in Cache County on 22 March 1968. Two nests in Cache County were active from at least 3 May to 23 May, when hatching occurred at one nest (Forsythe 1972). For inferences about the phenology of the population, see Forsythe (1970:214).

*GREATER YELLOWLEGS, *Tringa melanoleuca*. Common transient. Spring occurrence 24 March-8 May; maximum number recorded, 40. Autumn occurrence 13 June-6 October; maximum number recorded, 9.

*LESSER YELLOWLEGS, *Tringa flavipes*. Common transient. Spring occurrence 1 April-26 May; maximum number recorded, 90. Autumn occurrence 24 June-6 October; maximum number recorded, 40. Several observers found 1 or 2 individuals in Cache County 11 January-14 February 1981 (Am. Birds 35:322, 1981).

SOLITARY SANDPIPER, *Tringa solitaria*. Uncommon transient. Spring occurrence 6-11 May, based on five sightings of at least 2 individuals. A specimen was taken in Cache County on 28 April 1937 (Hayward et al. 1976). Autumn occurrence 29 July-9 September, based on seven sightings of at least 8 individuals; maximum number recorded, 3.

The notion that this species may nest in Utah (Hayward et al. 1976) is almost certainly erroneous (see Palmer 1967).

SPOTTED SANDPIPER, *Actitis macularia*. Common summer resident in northern Utah, but uncommon at the Barrens. Most commonly seen in northern Utah around alpine lakes and impoundments of mountain streams. Habitat at the Barrens apparently is not preferred for nesting, although similar habitat at the Bear River Migratory Bird Refuge supports a small breeding population (pers. obs.; some young fledge by mid-June). A maximum of 4 birds was recorded in a single census at the Barrens. Song-flights and courtship behavior were observed in mid-June 1978, but nesting was not confirmed. Recorded dates of occurrence, 14 May-28 June and 19 July-3 September, suggest that the small numbers of Spotted Sandpipers seen at the Barrens are transients there.

**WILLET, *Catoptrophorus semipalmatus*. Common summer resident. Present 1 April-9 September, with a maximum of 127 recorded during fall migration, and an estimated breeding population of 10-15 pairs in fields surrounding the Barrens.

Copulations observed 19 April-3 June. Nests with eggs 1 May-18 June. Flightless young 25 May-10 July, and fledged young by 19 June. Last birds seen in fall are

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young-of-the-year. Most birds have departed by mid-August. For inferences about the phenology of the population, see Sordahl (1979:552).

Arenariinae

RUDDY TURNSTONE, *Arenaria interpres*. Occasional. One in alternate plumage seen on 5 June 1976. Previous Utah records are all from the northern part of the state. Behle and Perry (1975) reported 1 specimen taken on 4 August 1930 in Box Elder County, and sight records on 3 June 1944, 29 April 1962 and 24 August 1973. Hayward et al. (1976) reported three additional sight records, all from Box Elder County: 2 birds in late May 1932; 3 birds in alternate plumage on 17 May 1933; and 1 bird on 28 May 1944.

Phalaropodinae

***WILSON'S PHALAROPE**, *Phalaropus tricolor*. Common summer resident. Present 21 April-3 September (1 very early female just beginning the pre-alternate molt was present for 1 day, 26 March 1978). Maximum of 579 recorded during fall migration; maximum spring numbers, ca. 300. Estimated breeding population of 70-80 pairs.

Early spring sex ratio favors females. Spring birds are in alternate plumage; autumn birds are in pre-basic molt, and most are in predominantly basic plumage.

Copulations observed late April. Nests with eggs 18 May-8 June. Flightless young 16-26 June. Flocking prior to fall migration is noticeable by the 4th week of June.

***NORTHERN PHALAROPE**, *Phalaropus lobatus*. Common transient, but less common than *P. tricolor*. Spring occurrence 28 April-25 May; maximum number recorded, 100. Autumn occurrence 2 July-6 October; maximum number recorded, 280. Spring birds are in alternate plumage; autumn birds are in pre-basic molt, and most have nearly completed it.

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Willet, June 1979, Utah.

Photo by Tom Bledsoe